

Vision for CyAir¹

Key characteristics of an Air Quality Community Infrastructure:

Usage. It's easy to learn about, acquire, and use data, related metadata and analysis tools from many different data centers. It's easy to participate in the community infrastructure. A suite of accepted standards, methods, guidelines, code samples and utilities exist to facilitate sharing and using data/information. Conventions and best practices for commonly used data exchange standards exist to meet the needs of the air quality community.

Community. A shared understanding exists within the community regarding the path to implement data sharing, methods to acquire and use data, and the benefits of participating in the community. There is an ongoing focus on education and outreach to raise awareness of these benefits. The community is buffered from rapid technology shifts and changes in organizational policy.

Organizational. Agencies align funding requirements and incentives to support infrastructure development in the short term, and to promote data exchange, increase data usage by the community, and maintain the viability of the infrastructure in the long-term. Organizational policies and procedures that inhibit data exchange are minimized or removed.

Aligned with Principles of GEOSS.

List of What's Important in the Cyberinfrastructure:

For Data Providers/Data Enhancers:

- Quick access to what is already available and can be leveraged
- Participation is made easy
- Common understanding of technical issues
- System portals are ready to accept the data
- Agnostic to data standards or methods
- Long-lasting and reliable to promote usage
- User support tools are easy to implement
- Robust
- Clearly-defined documentation standards
- Benefits of participation are clearly communicated
- Reach goals by focusing on getting things done and less on planning
- Organizational buy-in exists through coordinated, cross-agency funding

For End Users:

- Well-understood formats and nomenclature
- Longevity of data and definitions
- Easy access to documentation on technical issues
- Searchable metadata catalogs
- Clearly documented information
- Agnostic to data standards or methods
- Long-lasting and reliable to promote usage
- Strong user support tools and resources (help desk)

- Training is available on the use of the data
- Easy to navigate the system web pages and capabilities

¹CyAir's Role in the advancement of an Air Quality Community Infrastructure:

CyAir provides guidance for others to develop key components of an air quality community infrastructure. To this end, CyAir is conducting an assessment of the current state of an air quality community infrastructure. Through this process, CyAir is identifying gaps and needs for realizing the promise of a community information infrastructure and will provide recommendations for removing or reducing barriers to information exchange and achieving significant advancements.